

**Amendments to the Claims** are shown in the "Listing of the Claims" which begins on page 3 of this paper.

**Remarks** begin on page 6 of this paper.

Please enter the following amendments and remarks.

Listing of the Claims

The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

1 – 49. (cancelled)

50. (Previously presented) The method of claim 58, wherein said blood sample of step (a) and each of said blood samples from said control subjects has not been fractionated into cell types.

51. (Cancelled)

52. (Currently amended) The method of claim 58 or claim 50, ~~50 or 51~~, wherein said quantifying is effected relative to a housekeeping gene.

53. (Currently amended) The method of claim 58 or claim 50, ~~50 or 51~~, wherein said quantifying is effected by quantifying cDNA corresponding to RNA encoded by said gene.

54. (Cancelled)

55. (Cancelled)

56. (Currently amended) The method of claim 58 or claim 50, ~~50 or 51~~, wherein said quantifying is effected using quantitative RT-PCR.

57. (Currently amended) The method of claim 58 or claim 50, ~~50 or 51~~, wherein said quantifying is effected using an array.

58. (Currently amended) A method of classifying netrin 4 (NTN4) gene expression in a human test subject, said method comprising:

(a) quantifying a level of RNA encoded by a netrin 4 (NTN4) gene in a blood sample from said test subject; and

(b) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects having osteoarthritis; and

(c) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects who are healthy;

wherein a determination from steps (b) and (c) that said level of step (a) is statistically similar to said levels in said samples from said subjects having osteoarthritis and is statistically different, where  $p < .05$ , from said levels in said samples from said healthy subjects, results in a classification of netrin 4 (NTN4) gene expression in said test subject with that of said subjects having osteoarthritis, and

wherein a determination from steps (b) and (c) that said level of step (a) is statistically different from said levels in said samples from said subjects having osteoarthritis and is statistically similar to said levels in said samples from said healthy subjects, results in a classification of netrin 4 (NTN4) gene expression in said test subject with that of said subjects who are healthy.

59.(Canceled)

60. (Canceled)

61. (Canceled)

62. (New) A method of screening a human test subject for being a candidate for having osteoarthritis, said method comprising:

- (a) quantifying a level of RNA encoded by a netrin 4 (NTN4) gene in a blood sample from said test subject; and
- (b) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects having osteoarthritis; and
- (c) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects who are healthy;

wherein said test subject is a candidate for having osteoarthritis if steps (b) and (c) result in a determination that said level of step (a) is statistically similar to said levels in said samples from said subjects having osteoarthritis and is statistically different, where  $p < .05$ , from said levels in said samples from said healthy subjects.

63. (New) The method of claim 62, wherein said blood sample of step (a) and each of said blood samples from said control subjects has not been fractionated into cell types.
64. (New) The method of claim 62, wherein said quantifying is effected using quantitative RT-PCR.
65. (New) The method of claim 62, wherein said quantifying is effected using an array.